

MEDICINE

Remarkable Results Claimed For Arthritis Treatment

Six Month Investigation by Chicago Physicians Indicates Relief of Pain Especially for Acute Cases

A NEW treatment for arthritis, said to show remarkable results in preliminary trials, has been imported from Europe and is being successfully used by two Chicago physicians.

In acute cases the results are said to be often spectacular. In chronic cases, relief from pain and crippling comes to many after from three to six months' treatment. In a few cases no improvement takes place.

Six months' investigation of the treatment in 105 cases of arthritis and associated conditions is reported by Drs. Laurence H. Mayers and S. K. Livingston of Chicago (*Industrial Medicine*, February).

In these cases, 32.3 per cent. have shown complete improvement; 42.8 per cent., marked improvement; 19 per cent.,

slight improvement; 6.7 per cent., no improvement.

The treatment consists of hypodermic injections of a new parenteral acid preparation under the skin, into the muscles and around the nerves. The preparation is being manufactured in the laboratories of Dr. Eduard Lyss at Biel, Switzerland. It consists of sulfur, formic acid and iodine combined with a terpene.

In acute cases, such as lumbago and sciatica, these physicians find that relief from pain is almost immediate. Chronic arthritic conditions, which have for years shown no response to other forms of treatment, in many cases show remarkable improvement after a few weeks' or months' treatment.

Drs. Mayers and Livingston in their preliminary report cautiously state:

"This treatment is in no sense a panacea. Nor is it advanced as the ultimate in the treatment of arthritis.

"However, in our experience in testing 105 cases, it has evidenced a superiority over other forms of therapy in three ways: it acts rapidly; it is safe, and it produces no untoward reactions during or following the injections."

The experimental work on the new preparation in America has been done at Hines Hospital, the veterans' hospital near Chicago, and in private office practice.

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ARCHAEOLOGY

No Trace Left of Gold That Ransomed the Inca

HAS ANY museum in the world one piece of the golden treasure that Pizarro took in the conquest of Peru?

The answer is apparently "No."

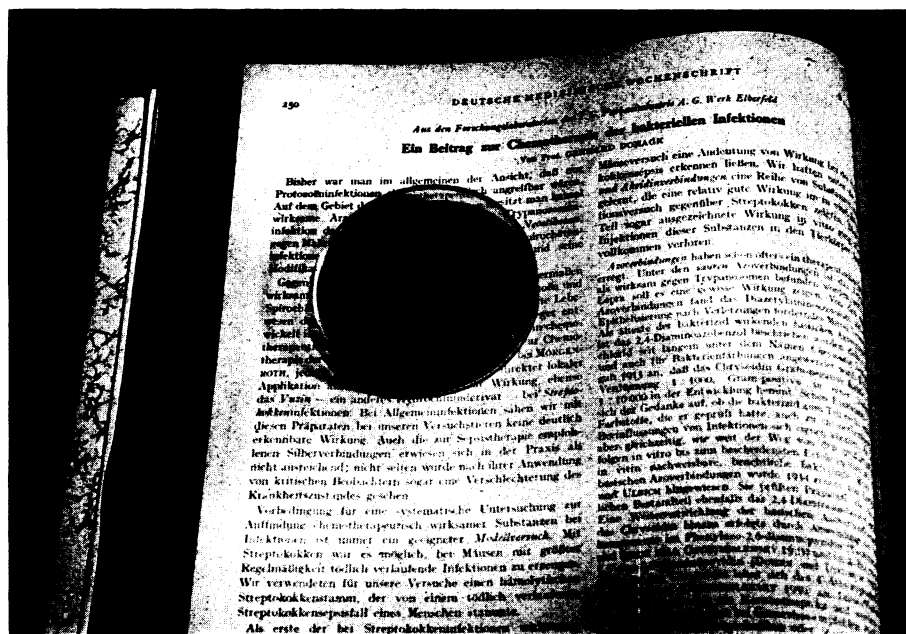
Dr. S. K. Lothrop of the Peabody Museum, Harvard University, in a new report on "Inca Treasure, as Depicted by Spanish Historians," states:

"So far as I am aware, not even one object from the loot of Peru has survived to this day."

Most people have heard of the room which Atahualpa, Indian ruler of the Incan Empire, offered to fill with gold as high as he could reach, and with more silver than that, provided the Spaniards restored his liberty. Given two months to get the ransom, Indians scattered with Spanish escort. They plundered their Temple of the Sun in Cuzco. They brought gold from the great shrine at Pachacamac—though much of that remained hidden.

The Spaniards took the gold and silver vases, platters, furniture, temple objects, and they ordered the Indians to run nine forges to melt down most of it. By Spanish custom, the leader Pizarro kept one article of the loot, and he chose a golden litter weighing 200 pounds. Dr. Lothrop estimates that the Inca's ransom equaled \$8,344,307. But the Spaniards double-crossed the unfortunate Indian, eventually executed him.

By looting towns, and sending out raiding expeditions, the treasure-mad conquerors gathered in much more of the gold which the ignorant natives regarded merely as beautiful and worthy stuff for workmanship. To divide the spoils without too much bickering, and to send the Spanish Crown its required fifth, the conquerors continued to refine and reduce the gold into bars. In 1535, Charles the Fifth ordered all gold and



SULFANILAMIDE DISCOVERED

This Science Service picture has just been awarded honorable mention in the current newspaper photography contest of Editor and Publisher, showing growing appreciation of the newsworthiness of science pictures. The prize-winning photograph was made by Science Service photographer Fremont Davis using a 4 x 5 Speed Graphic with a f 4.5 Zeiss Tessar lens. The film was Defender X-F panchromatic. See SNL, Dec. 3 for other photographs by Mr. Davis on this same subject.



silver from Peru to be melted in royal mints in Spain.

Dr. Lothrop says: "Hence, our knowledge of the wealth secured from the Incas comes entirely from historical narratives. Altogether these afford but very little information."

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METALLURGY

New Super Pure Metals Approach 99.9999 Per Cent.

ONE OF THE important but little noted scientific serials, with new installments ever appearing, is the story of super-pure metals.

Good advertising and a slogan about purity has sold millions of cakes of soap but some of the new super-purity metals have ratings fantastically higher. Lead that is 99.9999 per cent. fine is now available as metallurgists push their research outward in quest of still further decimal points.

As the purity of metals is increased it is interesting to note that, in general, the resistance to corrosion of the metal diminishes. Somehow there seems to be a link between contaminations in a metal and the ease with which it suffers chemical attack.

Aluminum, antimony, bismuth, cadmium, copper, iron, magnesium, nickel, silver, tin, gold, carbon and platinum of high purity are now available in moderate quantities for scientific research.

Extreme care must be taken in the preparation of super-pure metals. For tin it is common to drop the molten metal into distilled water where it forms into "moss" or into drops that are as convenient, for many purposes, as are the usual small bars of metal.

Super-pure zinc offers the possibility of improving the corrosion resistance of ordinary galvanized steel or iron.

The storage of samples of super-pure metals involves new problems which are only now being overcome. Transparent wrappings for many samples must be examined and carefully selected to prevent contamination. Handling the samples without tweezers is strictly to be avoided.

It is not always necessary to start the production of super-pure metals from refined commercial grades, reports the Bulletin of Arthur D. Little, Inc. Frequently, it is found, a major impurity can be precipitated out and will carry along with it many other impurities.

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PUBLIC ASSEMBLY

Here, apparently, people of the Vannic kingdom used to assemble for public ceremonies. A workman stands by the platform which would have been used in sacrifices or other rites.

ARCHAEOLOGY

Hillside Fortifications Found at Ruins of Van

HILLSIDE fortifications that kept mighty Assyria from taking the city of Van, Asia Minor, in ancient international struggle, have been unearthed by the American expedition which is probing the buried history of the Vannic kingdom.

Traces of the inner and outer walls and a turret have been found, reports Prof. Robert P. Casey of Brown University, who led the past season's expedition together with Prof. Kirsopp Lake and Mrs. Lake, representing the University Museum, University of Pennsylvania. In time of siege, people of Van probably huddled inside the walls on their high, rocky hill, Prof. Casey concludes.

The expedition found new evidence that this small, almost forgotten kingdom had developed a high culture, when it was wrecked by the conquering Medes about 600 B.C. Beautifully fashioned pottery and implements cut from volcanic stone are among the relics that have lain buried in the ruins. The Vanni made sharp blades from this volcanic stone, and continued to use it long after metal was introduced, the archaeologists discovered. New camera techniques enabled the expedition to make color

photographs of the red, buff, and gray ware for later study.

On the north side of this hill, digging has uncovered a terrace and ceremonial platform, where the court of the kingdom may have assembled. The platform had a drain and other characteristics suggesting religious sacrifices. Adjoining this area, are remains of an ornamental wall of green and white stone, which probably collapsed about the sixth century B.C. Beneath the stones, the expedition found a well-preserved skeleton in reclining or sleeping position.

A trench cut from top to bottom of the hill revealed architectural remains of various periods. The Vannic kingdom is found to be the first to build here, since its walls were built on shelves cut out of the virgin rock.

The Turkish government is cooperating in the excavations.

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Penguins are the only birds that walk completely erect.

Starlings recently swarmed in such hordes about a wood in England that all undergrowth was killed before the birds finally left.